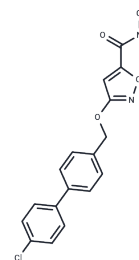


## ASM-IN-3

## Chemical Properties

CAS No. :	2342576-75-2
Formula:	C <sub>17</sub> H <sub>13</sub> ClN <sub>2</sub> O <sub>4</sub>
Molecular Weight:	344.75
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	ASM-IN-3 (Compound 21b) is a selective acid sphingomyelinase (ASM) inhibitor that can penetrate the blood-brain barrier, with an IC <sub>50</sub> of 3.37 μM against purified human ASM. By inhibiting ASM activity in the hippocampus and promoting neurogenesis, ASM-IN-3 alleviates depressive-like behavior in reserpine-induced depressive rats.
Targets(IC <sub>50</sub> )	Phospholipase
In vitro	ASM-IN-3 effectively penetrates hCMEC/D3 cell membranes at concentrations of 40 μM within 0.5 to 4 hours. It is also safe for NIH3T3 cells, with an IC <sub>50</sub> value of 161 μM, when used in concentrations ranging from 0.098 to 12.5 μM.
In vivo	ASM-IN-3 (48 mg/kg, intraperitoneal injection) effectively penetrates the blood-brain barrier in SD rats, as its concentration in brain tissue is significantly higher than in plasma. Additionally, ASM-IN-3 (6-24 mg/kg, intravenous injection, twice daily for 2 weeks) exhibits notable antidepressant-like effects in reserpine-induced depressed rats by reducing ASM activity in the hippocampus and restoring neurogenesis.

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9007 mL	14.5033 mL	29.0065 mL
5 mM	0.5801 mL	2.9007 mL	5.8013 mL
10 mM	0.2901 mL	1.4503 mL	2.9007 mL
50 mM	0.058 mL	0.2901 mL	0.5801 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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